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10/601,131	06/20/2003	Mathias Kokot	1014-065USD1	5964
72689 7590 12/18/2008 SHUMAKER & SIEFFERT, P.A. 1625 RADIO DRIVE, SUITE 300 WOODBURY, MN 55125				
EXAMINER MOORE JR, MICHAEL J				
ART UNIT		PAPER NUMBER		
2419				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

paiddocketing@ssiplay.com

Office Action Summary

Application No.

10/601,131

Applicant(s)

KOKOT ET AL.

Examiner

MICHAEL J. MOORE, JR.

Art Unit

2419

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-26, 28-40, 42-44, 47-53, 56-62, 65, 66 and 93-98 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 11-26, 28-32, 44, 47-53, 56-61 and 93-96 is/are allowed.
- 6) ☒ Claim(s) 33-40, 42, 43, 62, 65, 66, 97 and 98 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 10/22/08 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

Amendments made by Applicant to claims **6, 20, 27, 32, 34, and 52** to obviate the claim objections presented in the previous Office Action are proper and have been entered. These objections have been withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims **33-40, 42, 43, 62, 65, and 66** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claims **33, 38, 62, and 65** each claim "a computer-readable storage medium comprising instructions" which is vague and indefinite because it is unclear how a medium can comprise instructions. A medium can have instructions stored on it, recorded on it, etc., but it is not clear how it can just comprise instructions.

Claims **34-37, 39, 40, 42, 43, and 66** are also rejected since they depend from claims **33, 38, 62, and 65** and contain the same deficiency.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims **33-40, 42, 43, 62, 65, and 66** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims **33, 38, 62, and 65** are non-statutory because a "medium" cannot comprise "instructions", and as a result, the medium is just "instructions" and therefore fails to fall within a statutory category under 35 U.S.C. 101.

Claims **34-37, 39, 40, 42, 43, and 66** are also rejected since they depend from claims **33, 38, 62, and 65** and contain the same deficiency.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim **38** is rejected under 35 U.S.C. 102(b) as being anticipated by Fulp et al. (U.S. 6,055,571) (hereinafter "Fulp"). *Fulp* teaches all of the limitations of the specified claim with the reasoning that follows.

Regarding claim **38**, "a computer-readable storage medium comprising instructions that cause a programmable processor to: receive a request for transmission of packets according to a quality of service class from a subscriber device" is anticipated by the (re)negotiation for bandwidth resources (QoS) by a user (subscriber

device) through the sending of a request to switches in a particular route as spoken of on column 14, lines 53-55.

Lastly, "dynamically configure a quality of service profile stored by a data link layer device for a layer-2 link between the data link layer device and the subscriber device to control the data link layer device to facilitate packet transmission for the subscriber device via the layer-2 link according to the requested quality of service class" is anticipated by the switches (data link layer devices) that receive the user request and accordingly make an adjustment to the allocation of bandwidth resources to the particular user as spoken of on column 14, lines 55-66.

7. Claims **97 and 98** are rejected under 35 U.S.C. 102(b) as being anticipated by Hoebeke et al. (EP 1134932A1) (hereinafter "Hoebeke") cited in Applicant's submitted IDS. *Hoebeke* teaches all of the limitations of the specified claims with the reasoning that follows.

Regarding claim **97**, "receiving a request via a network layer device for a multimedia service from a subscriber device" is anticipated by the network access server (network layer device) that receives an IGMP join request (request for multimedia service) from a subscriber as spoken of on page 4, column 6, lines 17-19.

Lastly, "sending a control message from the network layer device to a data link layer device via at least one of an Ethernet or tunneling protocol control channel to configuring a control object stored by a data link layer device with the network layer device to control the data link layer device to provide data link layer functionality in

accordance with the request" is anticipated by the network access server (network layer device) that informs the network terminal device (data link layer device) via the multicast protocol channel (tunneling protocol control channel) that a particular subscriber is to receive multicast data, and the subsequent channel association (configuring control object) carried out in the network terminal as spoken of on page 4, column 6, lines 14-30.

Regarding claim 98, "sending the control message via a virtual local area network that is reserved for transmission of the control message" is anticipated by informing the network terminal device (data link layer device) via the multicast protocol channel and local network LN (virtual local area network connection) that a particular subscriber is to receive multicast data as spoken of on page 4, column 6, lines 14-30.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim **39** is rejected under 35 U.S.C. 103(a) as being unpatentable over Fulp et al. (U.S. 6,055,571) (hereinafter "Fulp") in view of Murphy (U.S. 6,754,224).

Regarding claim **39**, *Fulp* provides the teachings of claim **38**. *Fulp* does not teach where the request is for a voice over Internet Protocol call.

However, *Murphy* teaches a method of multicast call signaling in a packet network, where multicast groups having multicast addresses participate in VoIP call setup and communication as spoken of on column 7, lines 3-11.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to apply the resource allocation teachings of *Fulp* with the VoIP teachings of *Murphy* in order to provide effective QoS support and resource allocation in a VoIP environment.

11. Claim **40** is rejected under 35 U.S.C. 103(a) as being unpatentable over Fulp et al. (U.S. 6,055,571) (hereinafter "Fulp") in view of Boura et al. (U.S. 6,947,418) (hereinafter "Boura").

Regarding claim **40**, *Fulp* provides the teachings of claim **38**. *Fulp* does not teach the controlling of the data link layer device to provide preferential queuing of packets of the packet flow based on the requested QoS class.

However, *Boura* teaches a method of multicast transmission where higher priority (preferential queuing) is given to data flows provided by the shared class queue as spoken of on column 6, line 67 – column 7, line 5.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to combine the priority queuing teachings of *Boura* with the resource allocation teachings of *Fulp* in order to provide an effective method to guarantee expedited processing and transmission of data having QoS requirements.

Allowable Subject Matter

12. Claims **1-9, 11-26, 28-32, 44, 47-53, 56-61, and 93-96** are allowed.
13. The following is a statement of reasons for the indication of allowable subject matter:

Regarding *amended* claim **1**, *Hoebeker* teaches the network access server (network layer device) that receives an IGMP join request (request for multimedia service) from a subscriber as spoken of on page 4, column 6, lines 17-19.

Hoebeker also teaches the network access server (network layer device) that informs the network terminal device (data link layer device) that a particular subscriber is to receive multicast data, and the subsequent channel association (configuring control object) carried out in the network terminal as spoken of on page 4, column 6, lines 18-30.

Hoebeker as well as the other prior art of record fails to teach "receiving a request via a network layer device for activation or modification of a network service account of

a subscriber; in response to the request, querying a server with the network layer device for information relating to service profile that is associated with the subscriber; and
dynamically configuring a control object stored by a data link layer device with the network layer device in accordance with the service profile" in combination with the other limitations of *amended* claim **1**.

Regarding claims **2-9 and 11-17, 93, and 95**, these claims are further limiting to claim **1** and are thus also allowable over the prior art of record.

Regarding *amended* claim **18**, *Hoebeke* teaches the network access server (network layer device) that receives an IGMP join request (request for multimedia service) from a subscriber as spoken of on page 4, column 6, lines 17-19.

Hoebeke also teaches the network access server (network layer device) that informs the network terminal device (data link layer device) that a particular subscriber is to receive multicast data, and the subsequent channel association (configuring control object) carried out in the network terminal as spoken of on page 4, column 6, lines 18-30.

Hoebeke as well as the other prior art of record fails to teach "a network layer device comprising a control unit that receives a request for activation of a network service account of a subscriber, queries a server for information relating to a service profile that is associated with the subscriber in response to receiving the request, and dynamically configures a control object stored by a data link layer device in accordance with the service profile" in combination with the other limitations of *amended* claim **18**.

Regarding claims **19-23 and 28-32**, these claims are further limiting to claim **18** and are thus also allowable over the prior art of record.

Regarding *amended* claim **24**, *Hoebeke* teaches the network access server (network layer device) that receives an IGMP join request (request for multimedia service) from a subscriber as spoken of on page 4, column 6, lines 17-19.

Hoebeke also teaches the network access server (network layer device) that informs the network terminal device (data link layer device) that a particular subscriber is to receive multicast data, and the subsequent channel association (configuring control object) carried out in the network terminal as spoken of on page 4, column 6, lines 18-30.

Hoebeke as well as the other prior art of record fails to teach "a network layer device comprising a control unit that receives a request for transmission of packets according to a quality of service class from a subscriber device, and dynamically configures a quality of service profile stored by a data link layer device for a layer-2 link between the data link layer device and the subscriber device" in combination with the other limitations of *amended* claim **24**.

Regarding claims **25 and 26**, these claims are further limiting to claim **24** and are thus also allowable over the prior art of record.

Regarding *amended* claim **44**, *Hoebeke* teaches the network access server (network layer device) that receives an IGMP join request (request for multimedia service) from a subscriber as spoken of on page 4, column 6, lines 17-19.

Hoebeke also teaches the network access server (network layer device) that informs the network terminal device (data link layer device) that a particular subscriber is to receive multicast data, and the subsequent channel association (configuring control object) carried out in the network terminal as spoken of on page 4, column 6, lines 18-30.

Hoebeke as well as the other prior art of record fails to teach "receiving a request via a data link layer device for activation or modification of a network service account of a subscriber; forwarding the request from the data link layer device to a network layer device; receiving a control message from the network layer device by the data link layer device, the control message sent by the network layer device to the data link layer device in response to the request and including information relating to a service profile for the subscriber; dynamically configuring the control object based on the control message" in combination with the other limitations of *amended claim 44*.

Regarding claims **51, 52, 94, and 96**, these claims are further limiting to claim **44** and are thus also allowable over the prior art of record.

Regarding *amended claim 47*, *Hoebeke* teaches the network access server (network layer device) that receives an IGMP join request (request for multimedia service) from a subscriber as spoken of on page 4, column 6, lines 17-19.

Hoebeke also teaches the network access server (network layer device) that informs the network terminal device (data link layer device) that a particular subscriber is to receive multicast data, and the subsequent channel association (configuring control

object) carried out in the network terminal as spoken of on page 4, column 6, lines 18-30.

Hoebeker as well as the other prior art of record fails to teach "receiving a request for transmission of packets according to a quality of service class from the subscriber device at the data link layer device; forward the request from the data link layer device to a network layer device; receiving a control message that comprises quality of service information from the network layer device at the data link layer device, the control message sent by the network layer device in response to the request; dynamically configuring the quality of service profile based on the quality of service information" in combination with the other limitations of *amended* claim 47.

Regarding claims 48-50, these claims are further limiting to claim 47 and are thus also allowable over the prior art of record.

Regarding *amended* claim 53, *Hoebeker* teaches the network access server (network layer device) that receives an IGMP join request (request for multimedia service) from a subscriber as spoken of on page 4, column 6, lines 17-19.

Hoebeker also teaches the network access server (network layer device) that informs the network terminal device (data link layer device) that a particular subscriber is to receive multicast data, and the subsequent channel association (configuring control object) carried out in the network terminal as spoken of on page 4, column 6, lines 18-30.

Hoebeker as well as the other prior art of record fails to teach "a data link layer device comprising a control unit to: "receive a request via a data link layer device for

activation or modification of a network service account of a subscriber; forward the request to a network layer device; receive a control message from the network layer device, the control message sent by the network layer device in response to the request and including information relating to a service profile for the subscriber; dynamically configure the control object based on the control message" in combination with the other limitations of *amended* claim **53**.

Regarding claims **60 and 61**, these claims are further limiting to claim **53** and are thus also allowable over the prior art of record.

Regarding *amended* claim **56**, *Hoebeke* teaches the network access server (network layer device) that receives an IGMP join request (request for multimedia service) from a subscriber as spoken of on page 4, column 6, lines 17-19.

Hoebeke also teaches the network access server (network layer device) that informs the network terminal device (data link layer device) that a particular subscriber is to receive multicast data, and the subsequent channel association (configuring control object) carried out in the network terminal as spoken of on page 4, column 6, lines 18-30.

Hoebeke as well as the other prior art of record fails to teach "a data link layer device comprising a control unit to: receive a request for transmission of packets according to a quality of service class from a subscriber device; forward the request to a network layer device; store a control object that comprises a quality of service profile for a layer-2 link between the data link layer device and the subscriber device; receive a control message from the network layer device, the control message sent by the

network layer device in response to the request and including quality of service information; dynamically configures the quality of service profile based on the quality of service information" in combination with the other limitations of *amended* claim **56**.

Regarding claims **57-59**, these claims are further limiting to claim **56** and are thus also allowable over the prior art of record.

Response to Arguments

14. Applicant's arguments filed 9/5/08 regarding the rejections of claims **33-40, 42, 43, 62, 65, and 66** under 35 U.S.C. 101 and 35 U.S.C. 112, 2nd paragraph have been fully considered but they are not persuasive.

Regarding these rejections, it is held that since the current claim language does not indicate how the claimed "instructions" are embodied on the "computer-readable storage medium" that it is unclear whether these claims are limited to statutory embodiments of invention, or whether non-statutory embodiments (i.e. carrier wave, computer program *per se*, etc.) are within the scope of these claims. A suggestion to alleviate these rejections would be to amend the claim language to recite "A computer-readable storage medium encoded with instructions".

15. Applicant's arguments with respect to *amended* claims **1-9, 11-26, 28-32, 44, 47-53, and 56-61** have been fully considered and are persuasive. The rejections of these claims have been withdrawn.

16. Applicant's arguments with respect to *amended* claims **38-40** have been considered but are moot in view of the new ground(s) of rejection provided above.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **MICHAEL J. MOORE, JR.**, whose telephone number is (571)272-3168. The examiner can normally be reached on Monday-Friday (7:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti K. Patel can be reached at (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J. Moore, Jr./
Examiner, Art Unit 2419

